

WHAT IS CLAIMED IS:

1. In a packet forwarding device, a method comprising:  
monitoring types of packet traffic received in the packet forwarding device;  
determining whether a type of packet traffic received in the packet forwarding device is a predetermined type; and  
when the type of packet traffic is the predetermined type, automatically performing at least one of  
changing assignment of the predetermined type of packet traffic from a queue having a first priority to a queue having a second priority,  
dropping packets of the predetermined type in the packet traffic,  
copying packets of the predetermined type in the packet traffic,  
and  
diverting packets of the predetermined type in the packet traffic.
2. The method of claim 1, wherein the type of packet traffic is based on its source.
3. The method of claim 2, wherein sources of packet traffic include a source MAC address.

4. The method of claim 2, wherein sources of packet traffic include a source VLAN.

5. The method of claim 1, wherein the type of packet traffic is based on its ingress port.

6. The method of claim 1, wherein the type of packet traffic is based on its destination.

7. The method of claim 6, wherein the destination of packet traffic includes a destination MAC address.

8. The method of claim 6, wherein the destination of packet traffic includes a destination VLAN.

9. The method of claim 1, wherein the type of packet traffic is based on its egress port.

10. The method of claim 1, wherein the type of traffic is based on its protocol.

11. The method of claim 10, wherein the protocol of traffic includes FTP.

12. The method of claim 10, wherein the protocol of traffic includes HTTP.

13. In a packet forwarding device, a method comprising:  
monitoring environmental conditions of reception of packet traffic in the packet forwarding device;

determining whether environmental conditions of reception of packet traffic in the packet forwarding device meet predetermined criteria, and

when the environmental conditions of reception of packet traffic meet the predetermined criteria, automatically performing at least one of

changing assignment of packet traffic from a queue having a first priority to a queue having a second priority,

dropping packets in the packet traffic,

copying packets in the packet traffic, and

diverting packets in the packet traffic.

14. The method of claim 13, wherein the environmental conditions meeting the predetermined criteria include time of day.

15. The method of claim 13, wherein the environmental conditions meeting the predetermined criteria include network configuration changes.

16. The method of claim 15, wherein the network configuration changes include network failures.

17. The method of claim 15, wherein the network configuration changes include network congestion.

18. The method of claim 13, wherein the environmental conditions meeting the predetermined criteria include network error rates.

19. The method of claim 13, wherein the environmental conditions meeting the predetermined criteria include line use of high level protocols.

20. In a packet forwarding device, a method comprising:

- monitoring traffic patterns of packet traffic received in the packet forwarding device;
- determining whether traffic patterns of packet traffic in the packet forwarding device meet predetermined criteria, and
- when the traffic patterns of packet traffic meet the predetermined criteria, automatically performing at least one of
  - changing assignment of at least one type of packet traffic from a queue having a first priority to a queue having a second priority,
  - dropping packets in the packet traffic,
  - copying packets in the packet traffic, and

diverting packets in the packet traffic.

21. The method of claim 20, wherein at least some of the traffic patterns are based on specified source ports.

22. The method of claim 20, wherein at least some of the traffic patterns are based on specified destination ports.

23. The method of claim 20, wherein at least some of the traffic patterns are based on specified source MAC addresses.

24. The method of claim 20, wherein at least some of the traffic patterns are based on specified IP flows.